CLAIMS:

1. A method for improving muscle protein synthesis comprising the steps of administering a therapeutically effective amount of a composition comprising: a protein source which provides at least 8% of the total calories of the composition and which includes at least 50% by weight, of the protein source, whey protein, a lipid source having an omega 3 to 6 fatty acid ratio of approximately 5:1 to about 10:1 and which provides at least 18% of the total calories of the composition, a carbohydrate source, and a macronutrient profile comprising at least vitamin E and vitamin C.

2. The method of Claim 1 wherein the whey protein includes a partially hydrolyzed whey protein.

3. The method of Claim 1 wherein the whey protein includes a whey protein hydrolysate that comprises at least 50% of the protein source in the composition.

4. The method of Claim 1 wherein at least 50% by weight of the whey protein is hydrolyzed.

5. The method of Claim 1 wherein the composition includes caseino glycomacropeptide.

6. The method of Claim 1 wherein the protein source provides up to about 20% of the total energy of the composition.

7. The method of Claim 1 wherein the lipid source comprises about 40% to about 65% by weight of monounsaturated fatty acids and about 15% to about 30% by weight of polyunsaturated fatty acids.

8. The method of Claim 1 wherein the saturated fatty acid content is less than 30% by weight.

9. The method of Claim 1 wherein the lipid source provides approximately 25% to about 35% of total energy of the composition.

10. The method of Claim 1 wherein the carbohydrate source comprises sucrose, corn syrup, maltodextrin or a combination thereof.

11. The method of Claim 1 wherein the carbohydrate source provides approximately 50% to about 60% of total energy of the composition.

12. The method of Claim 1 wherein the micronutrient composition includes one or more micronutrients selected from the group consisting of: Vitamin E, Vitamin C, taurine, folic acid and vitamin B-12.

13. The method of Claim 1 which comprises at least one prebiotic fiber selected from the group consisting of: inulin; acacia gum; resistant starch; dextran; xylo-oligosaccharide ; fructooligosaccharide (FOS); and combinations thereof.

14. The method of Claim 1 including at least one probiotic micro-organism.

15. A method for preventing muscle loss in an individual at risk of same comprising the steps of administering a therapeutically effective amount of a composition comprising: a protein source which provides at least 8% of the total calories of the composition and which includes at least 50% by weight, of the protein source including whey protein, a lipid source having an omega 3 to 6 fatty acid ratio of approximately 5:1 to about 10:1 and which provides at least 18% of the total calories of the composition, a carbohydrate source, and a macronutrient profile comprising at least vitamin E and vitamin C.

16. The method of Claim 15 wherein the whey protein includes a partially hydrolyzed whey protein.

17. The method of Claim 15 wherein the whey protein includes a whey protein hydrolysate that comprises at least 50% of the protein source in the composition.

18. The method of Claim 15 wherein at least 50% by weight of the whey protein is hydrolyzed.

19. The method of Claim 15 wherein the protein source provides up to about 20% of the total energy of the composition.

20. The method of Claim 15 wherein the lipid source comprises about 40% to about 65% by weight of monounsaturated fatty acids and about 15% to about 30% by weight of polyunsaturated fatty acids.

21. The method of Claim 15 wherein the saturated fatty acid content is less than about 30% by weight.

22. The method of Claim 15 wherein the lipid source provides approximately 25% to about 35% of total energy of the composition.

23. The method of Claim 15 wherein the micronutrient composition includes one or more micronutrients selected from the group consisting of: Vitamin E; Vitamin C; taurine; folic acid; and vitamin B-12.

24. The method of Claim 15 which comprises at least one prebiotic fiber selected from the group consisting of: inulin; acacia gum; resistant starch; dextran; xylo-oligosaccharide ; fructooligosaccharide; and combinations thereof.

25. The method of Claim 15 including at least one probiotic micro-organism.

26. A method for accelerating muscle mass recovery comprising the steps of administering a therapeutically effective amount of a composition to an individual comprising: a protein source which provides at least 8% of the total calories of the composition and which includes at least 50% by weight, of the protein source including whey protein, a lipid source having an omega 3 to 6 fatty acid ratio of approximately 5:1 to about 10:1 and which provides at least about 18% of the total calories of the composition, a carbohydrate source; and a macronutrient profile comprising at least vitamin E and vitamin C.

27. The method of Claim 26 wherein the whey protein includes a partially hydrolyzed whey protein.

28. The method of Claim 26 wherein the whey protein includes a whey protein hydrolysate that comprises at least 50% of the protein source in the composition.

29. The method of Claim 26 wherein at least 50% by weight of the whey protein is hydrolyzed.

30. The method of Claim 26 wherein the protein source provides up to about 20% of the total energy of the composition.

31. The method of Claim 26 wherein the lipid source comprises about 40% to about 65% by weight of monounsaturated fatty acids and approximately 15% to about 30% by weight of polyunsaturated fatty acids.

32. The method of Claim 26 wherein the saturated fatty acid content is less than about 30% by weight.

33. The method of Claim 26 wherein the lipid source provides approximately 25% to about 35% of total energy of the composition.

34. The method of Claim 26 wherein the micronutrient composition includes one or more micronutrients selected from the group consisting of: Vitamin E; Vitamin C; taurine; folic acid; and vitamin B-12.

35. The method of Claim 26 which comprises at least one prebiotic fiber selected from the group consisting of: inulin; acacia gum; resistant starch; dextran; xylo-oligosaccharide ; fructooligosaccharide; and combinations thereof.

36. The method of Claim 26 including at least one probiotic micro-organism.